

B. In the Claims

Please amend claim 52 and cancel claims 1 to 51 without prejudice.

Upon entry of the present amendment, the status of the claims will be as follows:

Claims 1 to 51 (canceled).

52. (currently amended) A method of identifying a compound that inhibits a phosphatase involved in a hedgehog signaling pathway comprising:

a) incubating components comprising the compound, a transcription factor that, when phosphorylated, binds to a hedgehog response element, wherein the hedgehog response element is operatively associated with a target gene, and a phosphatase, under ~~conditions~~ conditions sufficient to allow the components to interact; and

b) measuring the ability of the compound to affect the hedgehog signaling pathway by detecting an increase or decrease in the expression of the target gene.

53. (previously added) The method according to claim 52, wherein the target gene is chloramphenicol acetyl transferase.

54. (previously added) The method according to claim 52, wherein the target gene is a lacZ gene.

55. (previously added) The method according to claim 52, wherein the hedgehog response element is a sonic hedgehog response element.

56. (previously added) The method of claim 52, wherein the sonic hedgehog response element comprises a nucleic acid having the sequence of SEQ ID NO:1.

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57. (previously added) The method of claim 52, wherein the transcription factor has been identified by:

- a) assaying lysate from the cells cultured in media containing an N terminal fragment of a hedgehog polypeptide and identifying as a hedgehog-responsive protein any protein showing induction or increased expression when compared to cells cultured in media not containing the N terminal fragment of a hedgehog polypeptide,
- b) determining the phosphorylation state of hedgehog-responsive protein identified in step (a) and identifying as a differentially phosphorylated hedgehog-responsive protein any hedgehog-responsive protein that is phosphorylated or dephosphorylated in response to the presence of an N terminal fragment of a hedgehog polypeptide,
- c) determining whether differentially phosphorylated hedgehog-responsive protein identified in step (d) binds to a hedgehog response element in either its phosphorylated or dephosphorylated state, and
- d) identifying as a hedgehog-mediated phosphorylation state-dependent transcription factor any differentially phosphorylated hedgehog-responsive protein factor which binds to a hedgehog response element in either its phosphorylated or dephosphorylated state.